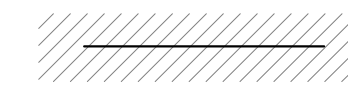


GENERAL MECHANICAL NOTES

APPLICABLE TO ALL DRAWINGS

- THE MECHANICAL CONTRACTOR SHALL INVESTIGATE AVAILABLE SPACE AND AVAILABLE ACCESS FOR ALL EQUIPMENT PRIOR TO SUBMISSION OF SHOP DRAWINGS.
- ADEQUATE SIZE ACCESS PANELS SHALL BE FURNISHED AND INSTALLED FOR ALL EQUIPMENT REQUIRING SERVICE, MAINTENANCE AND REPLACEMENT FOR THE BALANCING OF VALVES AND FOR THE OPERATION OF MECHANICAL SYSTEMS IN COORDINATION WITH THE GENERAL CONTRACTOR, AS PER THE SPECIFICATIONS.
- ALL EQUIPMENT DRAIN POINTS SHALL BE PIPED TO THE NEAREST FLOOR DRAIN.
- DUCT SIZES INDICATED ON THE DRAWINGS ARE TO BE NET FREE AREA. ALL DUCTWORK SHALL BE CONSTRUCTED, INSTALLED AND SEALED (CLASS A), PER THE LATEST SMACNA REQUIREMENTS.
- ALL SQUARE ELBOWS AND BULLHEAD TEES SHALL HAVE TURNING VANES.
- MECHANICAL CONTRACTOR SHALL SEAL THE DUCTWORK AND/OR PIPING PENETRATIONS THROUGH FIRE AND/OR SMOKE RATED WALLS WITH APPROVED FIRE STOP MATERIAL.
- PARTICULAR ATTENTION SHOULD BE PAID TO ADDITIONAL NOTES SHOWN ON THE INDIVIDUAL DRAWINGS.
- THE DUCTWORK AND PIPING SYSTEMS SHOWN ON THE DRAWINGS ARE SHOWN DIAGRAMMATICALLY WITHOUT EVERY OFFSET AND TRANSITION REQUIRED TO INSTALL THE WORK. OBVIOUS OFFSETS AND TRANSITIONS, AS RELATED TO MECHANICAL, ARE SHOWN WHERE POSSIBLE WITHOUT AFFECTING THE CLARITY OF THE DRAWINGS.
- ALL PIPING AND DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE RESPECTIVE AREAS.
- ALL MATERIALS INSTALLED IN THIS WORK SHALL BE NEW UNLESS SPECIFICALLY NOTED FOR RE-USE.
- ALL WORK PERFORMED SHALL BE GUARANTEED FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY THE OWNER, UNLESS SUCH DEFECTS ARE CLEARLY THE RESULT OF MISUSE OF EQUIPMENT BY PERSONS NOT UNDER THE CONTROL OF THE CONTRACTOR.
- THE MECHANICAL CONTRACTOR SHALL OBTAIN INSTALLATION INSTRUCTIONS ON EACH PIECE OF EQUIPMENT TO BE FURNISHED WHICH THE MECHANICAL CONTRACTOR IS REQUIRED TO INSTALL OR TO WHICH FINAL CONNECTIONS ARE TO BE MADE UNDER THE MECHANICAL CONTRACT. THE MECHANICAL CONTRACTOR SHALL INSTALL AND MAKE FINAL CONNECTIONS PER THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. THE CONTRACTOR SHALL DEMONSTRATE TO THE OWNER THAT THE INSTALLED EQUIPMENT OPERATES AS DESIGNED.
- ALL WORK UNDER THIS SECTION SHALL BE COORDINATED WITH ALL OTHER TRADES BEFORE INSTALLATION IS MADE.
- COORDINATE ALL MOTORS, STARTERS AND DISCONNECT REQUIREMENTS WITH ELECTRICAL CONTRACTOR FOR ALL EQUIPMENT REQUIRING SAME.
- ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED AND COORDINATED WITH ALL TRADES, IN SUCH A WAY SO THAT LIGHTS, CONDUITS, SPRINKLERS, SUPPLY AND/OR DRAIN PIPING DO NOT BLOCK ACCESS TO UNITS AND RELATED ACCESSORIES.
- THE MECHANICAL CONTRACTOR SHALL FURNISH ALL SUPPORT STEEL AND WOOD FRAMING AS REQUIRED FOR THE INSTALLATION OF MECHANICAL DUCTWORK AND EQUIPMENT, UNLESS OTHERWISE INDICATED.
- THE MECHANICAL CONTRACTOR SHALL FIELD MEASURE ALL DUCT RUNS PRIOR TO FABRICATING DUCTWORK. FURNISH AND INSTALL ALL DUCT TRANSITIONS, ELBOWS, FITTINGS AND OFFSETS REQUIRED TO ACCOMMODATE FIELD CONDITIONS.
- ALL PIPING ENCLOSED WITHIN WALLS, CEILINGS OR FLOORS SHALL BE LEAK TESTED PRIOR TO BEING CONCEALED.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING AND STAGING REQUIRED FOR THE INSTALLATION OF THE MECHANICAL SYSTEMS.
- ALL CEILING-MOUNTED EQUIPMENT SHALL BE INSTALLED IN SUCH A WAY THAT LIGHTS, PIPING AND DUCTWORK DO NOT BLOCK ACCESS TO UNITS AND RELATED ACCESSORIES.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHEETMETAL TRANSITIONS AT AIR TERMINAL UNITS, FANS, COILS AND OTHER SIMILAR MECHANICAL EQUIPMENT.
- PITCH ALL HORIZONTAL CONDENSATE DRAIN LINES 1/8" PER FOOT OF RUN.
- DUCT DIMENSIONS SHOWN ON ACOUSTICALLY LINED DUCTWORK ARE FOR CLEAR INSIDE DIMENSION AFTER APPLICATION OF LINER.
- ALL DIFFUSERS AND REGISTERS SHALL BE OF ALUMINUM CONSTRUCTION.
- FURNACE UNITS SHALL BE INSTALLED ON CONTRACTOR FURNISHED 4" HIGH HOUSE-KEEPING PADS.
- EACH FURNACE SHALL BE FURNISHED WITH A CONDENSATE PUMP. THE CONDENSATE DISCHARGE SHALL BE ROUTED TO THE BASEMENT EQUIPMENT ROOM.
- FURNACE RETURN AIR DUCTS SHALL BE CONSTRUCTED WITH AIR FILTER TRAY CLOSE TO UNIT CONNECTION. CONTRACTOR SHALL FURNISH ONE EXTRA SET OF FURNACE FILTERS FOR EACH UNIT.
- ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE CONSTRUCTED WITH 1-1/2" EXTERNAL DUCT WRAP INSULATION. BRANCH DUCT TAKEOFF FITTINGS SHALL BE INSULATED COMPLETE WITH NO EXPOSED METAL. DUCTWORK INSTALLED IN THE ATTIC EAVES SPACE SHALL BE CONSTRUCTED WITH 3" THICK DUCT WRAP INSULATION.
- FRESH AIR INTAKE DUCTS SHALL BE INSULATED WITH 1-1/2" EXTERNAL DUCT WRAP INSULATION.
- FRESH AIR INTAKE DUCTS SHALL BE INSTALLED WITH AN AUTOMATIC CONTROL DAMPER INTERLOCKED TO RESPECTIVE FURNACE TO BE NORMALLY CLOSED AND ENERGIZED OPEN WHEN THE FURNACE IS ENERGIZED.



EXISTING EQUIPMENT, PIPING, DUCT & APPURTENANCES TO BE REMOVED



CONNECT TO EXISTING



THERMOSTAT (MOUNT 48" AFF) ELECTRONIC

ABBREVIATIONS

ACD	AUTOMATIC CONTROL DAMPER
AD	ACCESS DOOR
AP	ACCESS PANEL
CEF	CEILING EXHAUST FAN
CU	AIR-COOLED CONDENSING UNIT
DB	DRY BULB TEMP. DEGREES F.
E	EXHAUST AIR DEVICE
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
GFF	GAS-FIRED FURNACE
HVAC	HEATING, VENTILATING & AIR CONDITIONING CONTRACTOR
HX	HEAT EXCHANGER
MAX	MAXIMUM
MIN	MINIMUM
OA	OUTSIDE AIR
DBD	OPPOSED BLADE DAMPER
PD	PRESSURE DROP (FEET OF WATER)
R	RETURN AIR DEVICE
RA	RETURN AIR
S	SUPPLY AIR DEVICE
SP	STATIC PRESSURE (INCHES OF WATER)
T	DIGITAL PROGRAMMABLE THERMOSTAT
TS	REMOTE TEMPERATURE SENSOR
WB	WET BULB TEMP. DEGREES F.

HVAC SYMBOLS

	RETURN / EXH. AIR DUCT TURN TOWARD	
	RETURN / EXH. DUCT TURN AWAY	
	(The letters VD may not always be shown) VOLUME DAMPER	
	AUTOMATIC CONTROL DAMPER (ELECTRIC OR PNEUMATIC)	
	FIRE DAMPER	
	BRANCH TAKE OFF	
	DUCT ELBOW W/ TURNING VANES (DOUBLE LINE)	
	DUCT OFFSET UP OR DOWN (ARROW INDICATES DIRECTION OF FLOW)	
	FLEXIBLE DUCT	
	GRAPHIC BREAK &/OR CONTINUATION OF DUCT OR PIPING	
	EXISTING DUCTWORK TO REMAIN	
	EXISTING DUCTWORK AND/OR EQUIP. TO BE REMOVED	
	DUCT REMOVED AND HOLE BLANKED OFF	
	SUPPLY DIFFUSER OR GRILLE	
	RETURN REGISTER OR EXHAUST GRILLE	
	DUCT SMOKE DETECTOR BY E.C.	

DRAWING LIST

M-0	MECHANICAL COVER SHEET
DM-1	MECHANICAL BASEMENT AND FIRST FLOOR DEMOLITION PLANS
M-1	MECHANICAL HVAC BASEMENT AND FIRST FLOOR PLANS
M-2	MECHANICAL MEZZANINE FLOOR PLAN AND FIRST FLOOR RCP
M-3	MECHANICAL SCHEDULES AND DETAILS
M-4	MECHANICAL SPECIFICATIONS
P-1	PLUMBING BASEMENT AND MEZZANINE GAS PIPING PLANS

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FREEDOM HALL FURNACE REPLACEMENT

Cotuit, MA

Notes:

North Arrow

Keyplan

Drawing Name:

MECHANICAL COVER SHEET

Scale: AS NOTED

Job No:

Drawn By: TEP

Date: Sept. 16, 2013

Drawing Number:

M-0